

CLAIMS:

1. A microactuator for finely positioning a transducing head carried by a slider adjacent a select radial track of a disc, the microactuator comprising:
a microactuator frame having a stator and a rotor wherein the rotor supports the slider and is movable with respect to the stator in response to actuation of the microactuator; and
means, mounted to the stator and separated from the rotor, for containing a magnetic field produced by the magnetic circuit.
2. The microactuator of claim 1 wherein the means for containing the magnetic field is a magnetic keeper structure.
3. The microactuator of claim 2 wherein the magnetic keeper structure includes a bottom keeper mounted to a bottom surface of the stator.
4. The microactuator of claim 3, and further comprising:
a bottom keeper tub formed on a bottom of the microactuator for receiving the bottom keeper.
5. The microactuator of claim 2 wherein the magnetic keeper structure includes a top keeper mounted to a top surface of the stator.
6. A disc drive having a disc rotatable about an axis, a slider carrying a transducing head for transducing data with a disc, and a dual stage actuation assembly supporting the slider to position the transducing head adjacent a selected radial track of the disc, the dual stage actuation assembly comprising:
a movable actuator arm;

10051366 "011802

a suspension assembly supported by the actuator arm, the suspension assembly including a gimbal;

a microactuator comprising:

a stator having a top surface and a bottom surface wherein the gimbal is connected to the top surface of the stator;

a rotor operatively connected to the stator and the rotor supporting the slider; and

a magnetic keeper structure supported by the stator such that the rotor moves with respect to the magnetic keeper structure.

7. The disc drive of claim 6 wherein the magnetic keeper structure includes a bottom keeper mounted to the bottom surface of the stator.
8. The disc drive of claim 7 wherein a tub is formed on a bottom of the microactuator for receiving the bottom keeper.
9. The disc drive of claim 8 wherein the tub includes a mounting point on the bottom surface of the stator for mounting the bottom keeper to the stator.
10. The disc drive of claim 7 wherein a standoff extends from the bottom keeper to attach the bottom keeper to the stator.
11. The disc drive of claim 10 wherein the standoff defines a gap between the bottom keeper and the rotor.
12. The disc drive of claim 6 wherein the magnetic keeper structure

includes a top keeper mounted to the top surface of the stator.

13. The disc drive of claim 12 wherein the top keeper has a pair of substantially parallel first standoffs for mounting the top keeper to the stator and the first standoffs define a gap between the top keeper and the rotor.

14. The disc drive of claim 13 wherein a magnet is attached to the top keeper and disposed within the gap.

15. A microactuator for finely positioning a transducing head carried by a slider adjacent a select radial track of a disc, the microactuator comprising:

a stator having a top surface and a bottom surface;

a rotor operatively connected to the stator, the rotor having an embedded coil and the rotor supporting the slider;

a first keeper mounted to the stator.

16. The microactuator of claim 15 wherein the first keeper is a bottom keeper mounted to the bottom surface of the stator.

17. The microactuator of claim 16, and further comprising a second keeper mounted to the top surface of the stator.

18. The microactuator of claim 16 wherein a tub is formed on a bottom of the microactuator for receiving the bottom keeper.

19. The microactuator of claim 18 wherein the tub includes a mounting point on the bottom surface of the stator for mounting the bottom keeper.

10051366-011802

20. The microactuator of claim 16 wherein the first keeper is a top keeper mounted to the top surface of the stator.

21. The microactuator of claim 16 wherein a first standoff extends from the first keeper for attaching the first keeper to the stator and the first standoff defines a gap between the first keeper and the rotor.

22. The microactuator of claim 21, and further comprising a magnet attached to the first keeper and disposed within the gap.

10051366.011802